June 5, 1984

Telephone: (303) 861-4366 Telecopier: (303) 832-3825

Telex: 45-0033

RECEIVED

Mr. Ron Firth c/o Division of Oil, Gas & Mining 4241 State Office Building Salt Lake City, Utah 84114

JUN 7 1984

DIVISION OF OIL GAS & MINING

RE: Lighthouse 1-4

Gentlemen:

Please find attached for your approval the APD for the above referenced well.

Due to unsettled lease situations, Bow Valley may elect to drill in Section 10, or Section 4. We are permitting Section 4 for that reason.

Please direct any questions to me. Thanks for your cooperation.

Mark Wagner

Staff Engineer/Altamont Bluebell

Enclosure

MW/11m

SUBMIT IN TRIPLICATE*

	THE DEPARTMENT O	STATE OF U F NATURAL		RCES		5. LBASE DESIGNATION	AND BREAT, NO.
	DIVISION OF OI					Otes	and seeial mo.
A DDL ICATION	N FOR PERMIT	O DRILL	DEEDE	N OR PLUG E	ACK	6. IF INDIAN, ALLOTTE	OR TRIBE NAME
	Y FOR FERMIN	O DIVILL,	<u> </u>	, OK 1200 I		N/A	
1a. TYPE OF WORK		DEEPEN		PLUG BA	CK 🗆 📗	7. UNIT AGREEMENT N	
b. TIPE OF WELL						Trail Cany	
OIL G	AS VELL OTHER			NGLE MULTIF	'L'B 🗌	8. FARM OR LEASE NA	
2. NAME OF OPERATOR					_	Lighthouse	2
Bow Va	lley Petroleum	Inc.				9. WELL NO.	
3. ADDRESS OF OPERATOR						1-4	
1700 B	roadway, #900;	Denver, CO	802	90		10. FIELD AND POOL,	
4. LOCATION OF WELL (B	teport location clearly and	in accordance wi	th any 8	state requirements.*)			fs - Wildca
At surface 198	80FWL 1980FNL S	ec.4-T16S-F	R16E			11. SEC., T., R., M., OR AND SURVEY OR A	BLK. Rea
At proposed prod. zo:						Sec. 4-16S	-16E
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	REST TOWN OR POS	T OFFIC	P.		12. COUNTY OR PARISH	ŧ.
82 roa	d miles SE from	ı price, UT				Emery	UT
15. DISTANCE FROM PROF LOCATION TO NEARES PROPERTY OR LEASE LI (Also to nearest drig	POSED* ST 1320*		16. NO	2520.12	TO TI	F ACRES ASSIGNED HIS WELL 640	
18. DISTANCE FROM PRO	POSED LOCATION® DRILLING, COMPLETED,	.25 mi.	19. PI	12,500	20. BOTA		
21. ELEVATIONS (Show W	nether DF, RT, GR, etc.)	9200' Ungi	22404	G 1		22. APPROX. DATE W	
		3200 Uligi	aueu	U.L.		July 1, 19	84
23.	1	PROPOSED CASI	NG AN	CEMENTING PROGR	AM		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER	POOT	SETTING DEPTH		QUANTITY OF CEME	
17½"	13-3/8	54#		3000 '	_ Ce	ment to surfa	ce
12½"	9-5/8	40#		9000'	1900	cu. ft (TOC 5	000.)
8-3/4	7"	26-29#		12,500'	630	cu. ft.	
To drill a	12,500' Morris	son/Dakota	gas 1	test. Evaluati	ion of o	oil potential	will be

done in the Mancos shale.

A rotating head will be used on all holes. Minimum 3000 psi BOPE will be nippled up and tested prior to drilling 8-3/4" hole. All BOPE will be operationally tested every 24 hours, and pressure tested to rated before drilling out any casing shoe or zones in which high pressure is expected. Separately BOPE diagram SEEE diagram.

JUN 7 1384

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal zone. If proposal is to drill or deepen directionally, give	As As Assess on plug back give date on present DTG	IVISION OF OIL Additive note and proposed new productive and true vertical depths. Give blowout
preventer program, if any.	Staff Engineer	6-4-84
(This space for Federal or State office use) PERMIT NO.	APPROVAL DATE	
APPROVED BY	TITLE	DATE

PERATOR Dow Valley Petroleum DATE 611-84
ELL NAME Sighthouse #1-4
EC NESWY T 165 R 16E COUNTY Emery
43-015-30198 API NUMBER TYPE OF LEASE
POSTING CHECK OFF:
INDEX
NID PI
MAP
PROCESSING COMMENTS:
need water frame
The state of the s
APPROVAL LETTER: SPACING: A-3 Nail Canyon Unit c-3-a CAUSE NO. & DATE
с-3-ь
SPECIAL LANGUAGE:

. .

Telephone: (303) 861-4366 Telecopier: (303) 832-3825

Telex: 45-0033

RECEIVED

June 11, 1984

JUN 1 4 1984

DIVISION OF OIL GAS & MINING

Division of Oil, Gas & Mining 4241 State Office Bldg. Salt Lake City, UT 84114

Attention: Arlene Bush

Re: Lighthouse #1-4

Sec. 4-T16S-R16E Emery Co., UT

Gentlemen:

Please find attached an amended APD for the above referenced well. This APD supercedes all others.

Sincerely,

BOW VALLEY PATROLEUM INC.

Mark Wagner

Staff Engineer/Altamont Bluebell

attachment

MW/bb

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

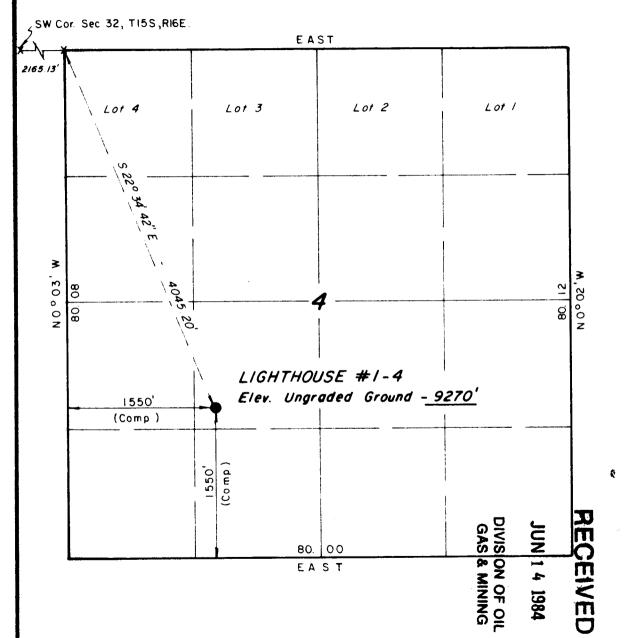
STATE OF UTAH

DEPARTMENT OF NA	TURAL RESOURCES		
DIVISION OF OIL, O	BAS, AND MINING		5. Lense Designation and Serial No.
·			U28275
ADDITION FOR BERALT TO	O DOUL DEEDELL	OD DILLO DACK	6 If Indian Allotten or Tribe Name
APPLICATION FOR PERMIT TO	O DRILL, DEEPEN	, OR PLUG BACK	. N/A
la. Type of Work			7. Unit Agreement Name
DRILL □X	DEEPEN	PLUG BACK 🔲	./
b. Type of Well			<u>Trail Canyon</u>
Oil Gas Well CX Other	Si Z	ingle Multiple Zone	8. Farm or Lease Name
2. Name of Operator			Lighthouse
Pour Valley Detwoleum Inc	AMEN.	UED	9. Well No.
Bow Valley Petroleum Inc.			 1-4
•	Ca 90300	1	10. Field and Pool, or Wildcat
1700 Broadway, Suite 900, Del Location of Well (Report location clearly and in a	nver, co 80390	·	
At surface			Book Cliffs - Wildcat
1550 FWL; 1550 FSL S	Sec. 4-T16S-R16E	NE SU	11. Sec., T., R., M., or Bik. and Survey or Area
At proposed prod. zone		16.50	
Same		No	Sec. 4-16S-16E
14. Distance in miles and direction from nearest town	n or post office*		12. County or Parrish 13. State
26 road miles from Sunnyside	LIT		Emery UT
15. Distance from proposed*		f acres in lease 17. No	o. of acres assigned
location to nearest		o d to	this well
property or lease line, ft. (Also to nearest drlg. line, if any)		0.12	640
18. Distance from proposed location*	19. Propo	sed depth 1 20. Ro	tary or cable tools
to nearest well, drilling, completed, or applied for, on this lease, ft. 5.00 1	mi. 12,	500 LUX R	otary
21. Elevations (Show whether DF, RT, GR, etc.)	0701 11 1 1 0 1	* VDr	22. Approx. date work will start*
9	270' Ungraded G.L	. 10"	July 1, 1984
			041, 1, 1501
23. p	PODOSED CASING AND O	EMENTING PROGRAM	
•	ROPOSED CASING AND C		
			0 10 40
Size of Hole Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
Size of Hole Size of Casing 17 ¹ / ₃ " 13-3/8	Weight per Foot 54#	Setting Depth 3000 I	Cement to surface
Size of Hole Size of Casing	Weight per Foot	Setting Depth	
Size of Hole Size of Casing 17½" 13-3/8 12½" 9-5/8	Weight per Foot 54# 40#	Setting Depth 3000 1 9000 1	Cement to surface 1900 cu. ft (TOC 5000")
Size of Hole Size of Casing 17½" 13-3/8 12½" 9-5/8	Weight per Foot 54#	Setting Depth 3000 I	Cement to surface
Size of Hole Size of Casing 17½" 13-3/8 12½" 9-5/8 8-3/4 7"	Weight per Foot 54# 40# 26-29#	Setting Depth 3000 ' 9000 ' 12,500 '-8700 '	Cement to surface 1900 cu. ft (TOC 5000") 630 cu. ft.
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Size of Hole Size of Casing 17½" 13-3/8 12½" 9-5/8 8-3/4 7" To drill a 12,500' Morrise done in the Mancos shale.	Weight per Foot 54# 40# 26-29# on/Dakota gas tes	Setting Depth 3000' 9000' 12,500'-8700' t. Evaluation of	Cement to surface 1900 cu. ft (TOC 5000") 630 cu. ft. oil potential will be
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PROJECT

BOW VALLEY PETROLEUM

Well location, LIGHTHOUSE
#/-4, located as shown in the
NEI/4 SWI/4 Section 4, T16S,
R16E, S.L.B. & M. Emery
County, Utah.



TYPE CATE

THE REPORT OF THE PARTY OF THE

HISTORED MANUSTRVEYOR PROSTRAT, N. NO. 2454

UINITAH ENGINEERING & LAND SURVEYING PO BOX Q - 85 SOUTH - 200 EAST

VERNAL, UTAH ~ 84078

S.A. E. I" = 1000' | 6/6/84

PARTY | DB BL | RP | REFERENCES | GLO | Plat

WEATHER | FAIR | FILE | BOW VALLEY

X = Section Corners Located

T165, R16E, S.L.B. & M.

SW Cor. Sec. 32, TI5S, RIGE. EAST 2/65./3 Lot 4 Lot 3 Lot 2 Lot 1 ₹ NO 003 \0457 80 0 LIGHTHOUSE #1-4 Elev. Ungraded Ground - 9270' 1550 (Comp.) 550 80. 00 EAST

BOW VALLEY PETROLEUM

Well location, LIGHTHOUSE
#/-4, located as shown in the
NE I/4 SW I/4 Section 4, T16S,
R16E, S.L.B. & M. Emery
County, Utah.

CERTIFICATE

THO S TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NUTES OF ACTUAL SURVEYS MADE BY WE OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND GOTHER TO THE BEST OF MY KNOWLEDGE AND BELIEF

REGISTERED THE SURVEYOR REGISTRATION Nº 2454

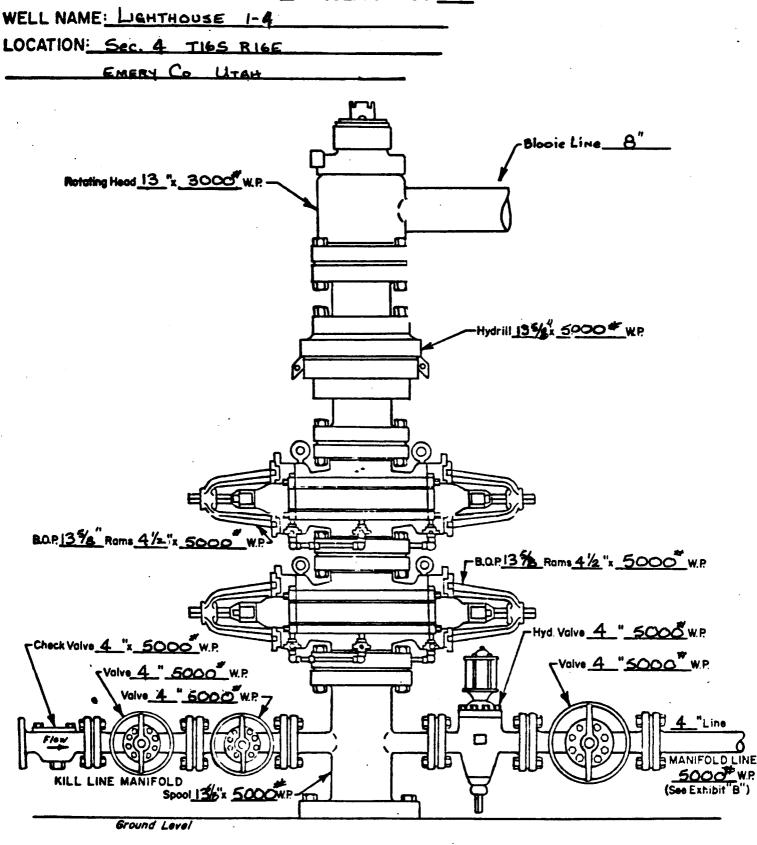
UINTAH ENGINEERING & LAND SURVEYING P.O. BOX Q — 85 SOUTH - 200 EAST VERNAL, UTAH - 84078

SCALE	1" = 1000'		DATE	6/6/84
PARTY	D8 8L	RP	REFERENCES	GLO Plat
WEATHER	FAIR		FILE	BOW 1/2

X = Section Corners Located

BOW VALLEY PETROLEUM

EXHIBIT A-___



WELL HEAD B.O.P. 5000 #W.P.

☐ Monuel

☑ Hydraulic

WILL DRILL 12/4/8% HOLES
THROUGH THIS EQUIP.

June 14, 1984

Bow Valley Petroleum Inc. 1700 Broadway, Suite 900 Denver, Colorado 80390

> RE: Well No. Lighthhouse #1-4 NESW Sec. 4, T. 16S, R. 16E 1550' FSL, 1550' FWL Emery County, Utah

Gentlewen:

Approval to drill the above referenced gas well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

- 1. Spudding notification to the Division within 24 hours after drilling operations commence.
- 2. Submittal to the Division of completed Form CCC-8-X, Report of Water Encountered During Drilling.
- 3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify R. J. Firth, Associate Director, Telephone (801) 533-5771 (Office), 571-6068 (Nome).
- 4. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-015-30198.

Sincerely,

Associate Director, Oil & Gas

RJF/as cc: Branch of Fluid Minerals Enclosures

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING

SUBN	"N TRIPLICATE*	
(0)	/instructions on	
	reverse side)	

	DIVISIO	ON OF OIL, GAS,	, AND MINII	NG	5.		N AND BERIAL NO.
_	SUNDRY NOTI	CES AND REPAIRS TO SERVICE TO SER	PORTS On pen or plug bacing for such proper	N WELCELVE	ED ·	U28275 IF INDIAN, ALLOTT N/A	SE OR TRIBE NAME
ī.	OIL WELL OTHER			JUN 2 5 198	84	Trail Can	yon
	Bow Valley Petroleum, I			DIVISION OF GAS & MININ	OIL .	Lighthous	
4.	1700 Broadway, Suite 90 LOCATION OF WELL (Report location close also space 17 below.) At surface	early and in accordan	ce with any Sta	290 Se requirements.*		1-4 PIELD AND POOL, Book Clif	on WILDCAT fs-Wildcat
	1550 FWL, 1550 FSL; Sec	tion 4, T16S,	R16E SLE	3 & M	11.	Sec. 4-16	
14.	PERMIT NO.	9270' Ungr		, GR, etc.)	12.	Emery	Utah
16.	Check Ap	•	Indicate Nati	ure of Notice, Repor	t, or Other		,
	FRACTURE TREAT SHOOT OR ACIDIZE A	ULL OR ALTER CASING MULTIPLE COMPLETE BANDON® MANGE PLANS		WATER SHUT-OFF FRACTURE TREATMEN SHOOTING OR ACIDIZI (Other) (NOTE: Report	Spud	REPAIRING ALTERING ABANDONM uitiple completion Report and Log f	CASING X
	Well was spudded w/Rath Spudded at noon on Sund	iole rig. Con lay June 17, 1	nductor pi 984.	pe will be set	at 160'±		
18.	I hereby corify that the foregoing is	true and correct	Staff	Engineer		6-2	1-84
_	(This space for Federal or State office		TITLE			DATE	
	APPROVED BY COMMITTEE S OF APPROVAL, IF A		ritle			DATE	

SUBMIT IN TRA

Form approved.
Budget Bureau No. 42-B1425.
REC'D MDO JUN 2 2 1984

tions de)

1	150	,					
٦ſ	5.	LEASE	DESIGNATION	AND	SERIAL	NO.	_
- 1		1120	775				

DEPARTMEN	II Or Inc II	NIERIOR]،	5. LEASE DESIGNATION AND	D SERIAL NO.
GEOLG	OGICAL SURVE	RECEIVE	_	U28275 *	
APPLICATION FOR PERMIT	TO DRILL,		ACK	6. IF INDIAN, ALLOTTEE OF	TRIBE NAME
la. TYPE OF WORK				N/A	<i>p</i> (
DRILL XX	DEEPEN	JUL PLZUGOBAC	CK 🗌	7. UNIT AGREEMENT NAM	5
b. TYPE OF WELL				Trail Canyon	•
OIL GAS WELL Y OTHER	; ;	SINGLE MULTIPE		8. FARM OR LEASE NAME	-
2. NAME OF OPERATOR	3	SINGLE ZONE ZONE		Lighthouse	•
Row Valley Petroleum Inc	.` Militar	ALLO & WINING	ĵ	9. WELL NO.	
Bow Valley Petroleum Inc. 3. ADDRESS OF OPERATOR				1-4	
1700 Broadway, Suite 900:	Denver. CO	80290	, ,	10. FIELD AND POOL, OR V	WILDCAT
1700 Broadway, Suite 900; 4. LOCATION OF WELL (Report location clearly and At Surface	d in accordance wit	h any State requirements.*)		Book Cliffs -	Wildcat
1550 FWL, 1550 FSL	· Sec. 4-T16	SS-R16E SLB & M	Í	11. SEC., T., R., M., OR BLE AND SURVEY OR AREA	
At proposed prod. zone	, 500. 1 120	,		Sec. 4-16S-16	iF.
• • •			I	0001 100 10	· -
Same 14. Distance in Miles and Direction From Ne	AREST TOWN OR POST	r office*		12. COUNTY OR PARISH 1	3. STATE
26 road miles from Sunnysi	de UT			Emery	UT
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST		16. NO. OF ACRES IN LEASE		F ACRES ASSIGNED	-
PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any)	1550	2520.12	10 12	640	
18. DISTANCE FROM PROPOSED LOCATION*		19. PROPOSED DEPTH	20. ROTAE	TY OR CABLE TOOLS	
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	5.0 miles	12,500	Ro	tary	* · ·
21. ELEVATIONS (Show whether DF, RT, GR, etc.)				22. APPROX. DATE WORK	
9270' Ungraded G.				July 1, 198	4

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
171"	13-3/8"	54#	3000'	Cmt to surf.
12½"	9-5/8"	40#	9000'	1900 cu. ft. (TOC 5000")
8-3/4"	8"	26-29#	12,500-8,700'	630 cu. ft.

To drill a 12,500' Morrison/Dakota gas test. Evaluation of oil potential will be done in the Mancos shale.

A rotating head will be used on all holes. Minimum 3000 psi BOPE will be nippled up and tested prior to drilling 8-3/4" hole. All BOPE will be operationally tested every 24 hours, and pressure tested to rated before drilling out any casing shoe or zones in which high pressure is expected. See attache BOPE diagram.

ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If propose ne. If proposal is to drill or deepen directionally, give	ul is to deepen or plug back, give data on present power pertinent data on subsurface locations and measure	roductive sone and proposed new producti ared and true vertical depths. Give blowd
eventer program if any		
SIGNED TO THE STATE OF THE STAT	Staff Engineer	DATE 6-19-84
(This space for Federal or State office use)		
PERMIT NO.	APPROVAL DATE	
/S/ GINE NODINE	TITLE MOTOICT MANAGER	2 9 JUN 1984
CONDITIONS OF APPROVAL, IF ANX:	OF APPROVAL ATTACHED	

SUBJECT TO RIGHT OF WAY **APPROVAL**

*See Instructions On Reverse Side

FLARING OR VENTING OF GAS IS SUBJECT OF NTL 4-A DATED 1/1/80

Quinty w

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY:	BOW VAL	LEY PET	ROLEUM				· ·
WELL NAME:	LIGHTHO	USE 1-4		<u></u>			··· ·
SECTION_NESW	_ Township_	16S	RANGE_	16E	COUNTY	Emery	
DRILLING CONTRACT	TORAp	0110					
RIG #_2							
SPUDDED: DATE_	7-5-84						
TIME_	6:00 AM						
How	Rotary						
DRILLING WILL CO	MMENCE						
REPORTED BY	Chuck Gard	ner					
TELEPHONE #	722-5166			•			
	·						
DATE 7-5-84				SIGNED	AS		

SCHOOL IN TRUPLICATE. (Utter hielmirlinne mi

ATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING

	ATE OF UTAH	rera. 9	d()	
DEPARTME DIVISION	NT OF NATURAL RESOUR	NG	U28275	
SUNDRY NOTICE TO BE BOTH TO BE BO	ES AND REPORTS OF the Bot on POR PERMIT—" for such pro-	N WELLS to a different processir.	N/A	
OIL S SAB D OFFICE			Trail Canyon	
	Petroleum, Inc.		Lighthouse	
LOCATION OF WELL (Report location ele-	r 130, Roosevelt, arly and in accordance with any Bo	Utah 84066 Late requirements.*	1-4 10. PIELD AND POOL, OR WI Wildcat	
1550' FSL,	1550' FWL, NE SW		Sec. 4, T16S	, R16E
43-015-30198	9270 Ungraded		12. 600 mm. On 122102	Utah
IS. Check App	propriate Box To Indicate No	nture of Notice, Report, or C	Other Data	
PROT WATER SEUT-OFF PARCTURE TREAT MEDIT OR ACIDIZE A	DLL OR ALTER CABING DICTIPLE COMPLETE DANDON*	WATER SHUT-OFF FRACTURE TREATMENT SHOUTING OR ACIDIZING (Other) Spudding (Note: Report result ('unipletion or Recom)	ALTERING WELL ALTERING CASING ADAMPONMENTS s of multiple completion on topic tion Report and Log form.)	• X

This well was spudded on 7-5-84 @ 6:00 a.m. and reported to Ron Firth per telephone conversation with Charles C. Gardner at 4:10 p.m. on the same day.

Drilling contractor for this well is Apollo Drilling Company.

JUL 16 1384

DIVISION OF OIL GAS & MINING

18. I hereby certify that the foregoing is true and correct	Eng Work	7-13-84
BIGNED Auchelle Kinesson	TITLE Eng. Tech.	DA11
(This space for Foderal or State office use)	·	
•	TITLE	DATE
APPROVED BY CONDITIONS OF APPROVAL, IF ANY:	•	•
CONDITIONS OF TITLE	•	

^{27.} DESCRIBE PROPOSED ON COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and somes pertinent to this work.)



Bow Valley Petroleum Inc.

P.O. Drawer 130, Roosevelt, Utah 84066

Telephone: (801) 722-5166

RECEIVED

July 13, 1984

JUL 17 1984

State of Utah
Dept of Natural Resources
Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

DIVISION OF OIL
GAS & MINING

RE: Well No. Lighthouse 1-4
NE SW Sec. 4, T16S, R16E
1550' FSL, 1550' FWL
Emery County, Utah
API# 43-015-30198

Gentlemen:

Fresh water to drill this well is being purchased from Don Wilcox, a private party who resides in Green River, Utah.

The water is being pumped from his private pond located in SW 1/4 NE 1/4 Section 31, T15S, R16E, Emery County, Utah. Water source supplying the pond is Twin Springs creek.

If additional information is needed please call (801) 722-5166.

Very truly yours,

Michelle Einerson

Engineering Technician

sf

STATE OF UTAH

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	icratu. oigi)	

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING							U28275		
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SUNUS	P to Probes	is to drill or to desper FION FOR PERMIT—"	or plus	bert to	different secerals.		N/A		
,	"APPLICAT	TION FOR PERMIT—	-	, , , , , ,	·	- 7.	PART AGREEMENT PA	нВ	
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	VALLEY	PETROLEUM I	NC -		AFCEIVED	— ['0. '	WELL DO.		
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		r 130, Roose				- 36.	FIELD AND POOL, OF	AITPCAL	
becation or wall (Rep.	ort location ex)	STILL WHO IN SECONDARY		,	SEP 2 0 1984				
At ourface		1550' FWL,	NE CL	J		32.	DDC., F., R., M., OR R. BURYET OR ARRA	LE. AND	
155	O FOL,	1330 FWII,	ME ŞI	•	DIVISION OF OIL				
					GAS & MINING		ec. 4, Tl65		
		18. BLEVATIONS (Show	whether	DF. DT. 00.	eta.)	12.	COURTS OF PARISH	IB. STATE	
43-015-301	9.8		raded			E	mery	Utah	
43-013-301							D-4-		
.	Check Ap	propriate Box To le	ndicate	Nature	of Notice, Report, o	r Other	Para		
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#V				Į.	WATER SHUT-OFF		BETAIRING W	PRILL	
TEST WATER SEUT-OFF		TULL OR ALTER CASING	H		PRACTURE TREATMENT		ALTERING CA		
PRACTURE TREAT	H .	CULTIPLE COMPLETE	H		SHOUTING OR ACIDITING		ABANDONMEN	77.	
SHOOT OR ACIDIZE	├ ─┤ `	PPANDOM.	H		Monthly	dri	lling repe	rt X	
REPAIR WELL	<u> </u>	THANGE PLANS	\vdash		(Note : Report res	uite of a	Benort and Log for	m.)	
(Other) 17. DESCRIPE PROPOSED OR C proposed work. If			<u></u>		Completion or Nett	tes, incl	uding estimated date	of starting an	
	Mon-	thly Drilling rep		1y-198 <u>DEPTH</u>	OPERATIONS				
	7 (04	1		420'	Spud well & Dr	illing	175"		
	7-6-84 7-7-84	2		630'	Drilling 175"		-		
	7-8-84	3		1265' 1873'	# R				
	7-9-84 7-10-84	5		2405'	•				
	7-11-84	6		3184'	minink Dele 17	ke bol	e & run 13 3/8'	' cea	
	7-1?-84 7-13-84	7 8		3430' 3430'	Cementing 13 3			0.09	
	7-14-84	9		3430'	WOC				
	7-15-84	10 11		3430' 3856'	Drilling cement Drilling 124"		oat equipment		
	7-16-84 7-17 - 84	12		3914'	D11111119 1				
•	7-18-84	13		4436'	W W				
•	7-10 -84 7 -20-84	1 4 15		4906' 5283'	•				
	7-21-84	16		5408'			• - •		
,	7-22-84	17		5412' 5871'	Drilling & wor Drilling 12%"		k pipe		
	7-23-84 7-24-84	18 19		5871'	Blow hole & tr	ip for	bit		
	7-25-84	20		5960'	Drilling 12%"	hole			
	7-26-84	21 22		6657' 6914'	•				
	7-27-84 7-28-84	23		6914'	Wash & ream to	botto	m		
	7-29-84	24		6914' 7153'	Drilling 12%"	hole			
	7-30-84 7-31-84	25 26		7201'	Diffilled and				
18. I hereby certify that		to true and correct				_			
		Enerson		Engin	eering Techn:	ician	DATE 9-1	8-84	
SIGNED THE	relles N								
(This space for Fode	ral or State of	Ace tot)	•						
Ann object to: A con-			title _				DATE		
CONDITIONS OF A	PPROVAL, IF			٠.				•	

SUBMITANT RUPLICATES (Other instructions on "some ride)

DEPARTMEN OF OIL GAS, AND MINING

	DIVISIO	N OF OIL	, GAS	, AND MINING	U28275
SUNDR	Y NOTICE	CES AN	D REI	PORTS ON WELLS ora or plug back to a different reservoir. " for such proposals.)	8. IF INDIAN, ALLOTTER OR TRIBE PAME
J	* AFFERON.			RECEIVED	T. UNIT AGREEMBHT HAMB
ABIT M ABIT D	07HB				Trail Canyon
L PAMS OF OPERATOR				OCT 09 1984	S. FARM OR LBASK HAND
BOW VALLEY	PETROLEU	JM INC		001 07 1364	Lighthouse
. ADDESSE OF OFSEATOR		• .		04055	
P.O. Drawer	130, Ro	oseveit	, Utal	n 84066 - DIVISION OF OTL	10. PIELD AND POOL, OR WILDCAT
Bee also space 17 below.) At surface	LE INCREION CIC	,		GAS & MINING	
1550' FSL,	1550' FV	VL. NE SI	W	·	11. SEC., T., B., M., OR BLE. AND SURVEY OR ARBA
2000 102,		· - , ··			
				•	Sec.4, T16S, R16E
14. PERMIT BO.			-	w whether BF, RT, GR, etc.)	12. COUNTY OR PARISH 18. STATE
43-015-3019	98	927	0' Un	graded ground	Emery Utah
16.	Check Ap	propriate B	lox To	Indicate Nature of Notice, Report, or	Other Data
	CB OF INTERT				QUENT REPORT OF:
				WATER SHUT-OFF	REPAIRING WELL
THE WATER SECT-OFF	—	ULTIPLE CON		PRACTURE TREATMENT	ALTERING CABINO
PRACTURE TREAT	_	DANDON®		SHOUTING OR ACIDIZING	ABANDUNAENT®
ACPAIR WELL		BANGE PLANS)		illing report X
(Other)				('mpletion or Recon	its of multiple completion on Well apletion Report and Log form.)
17. BESCRIBE PROPOSED OR CU proposed work. If we nent to this work.) *	MPLETED OPER	ally drines.	3 o	r all pertinent details, and give pertinent date beurface locations and measured and true vert PORT - AUGUST 1984	ical depths for all markers and zones perti-
	DATE	DAY DRLG	DEPTH	OPERATION	
	8- 1-84 8-2-84	27 28	7201' 7201'	Blowing hole & reaming bridges Washing & reaming bridges	
	8-3-84 8-4-84	29 30	7201' 7201'	n	
	8-5-84	31 32	7201' 7229'	" Drilling 12½" hole & reaming	
	8-6-84 8-7-84	3 3	7281'	**	
	8-8-84 8-9-84	34 3 5	7375' 7446'	Drilling 12½" hole	
	8-10-84 8-11-84	36 37	7552' 7692'	· ·	
	8-12-84 8-13-84	38 39	7798' 7898'	11 01	
	8- 14-84 8- 15-84	40 41	8017' 8145'	H H	
	8-16-84 8-17-84	42 43	8182' 8272'	n u	
	8-18-84	44	8360'	u n	
	8-19-84 8-20 - 84	45 46	8460' 8532'		
	8-21-84 8-22-84	47 48	8603' 8603'	Logging	
	8-23-84 8-24-84	49 5 0	8603' 8603'	Running 9 5/8" Casing Cementing 9 5/8" Casing	÷
	8-25-84 8-26-84	51 52	8603' 8603'	Drilling Cement	į
	8-27-84 8-28-84	53 54	8603' 8603'	Cement squeeze DV Tool Drilling Cement	
•	8-29-84	55	8942'	Drilling Biz" hole	
	8-30-84 8-31-84	56 57	10545' 11953'	11	
18. I hereby certify that th	e foregoing in	true and co	rrect		
BIGNED Suche	lettu	ierson		TITLE Engineering Technician	DATE 10-2-84
(This space for Federal	Einerso		***************************************		
(This space for Federal	OI STELL DW				DATE
APPROVED BY	ROVAL IP A	NY:	 .	TITLE	

2

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	DIVISION	OF OIL, GAS	, 7110 11111	•••	F	ee ·	
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ROW VAI	IFY PETR	OLUEM, INC	. DIVISE	ON OF OIL		igninouse	
DON TAL				8 MINING	9. WELL NO.		
D O DY	awer 130	, Roosevel	t. Utah	84066	#		· ·
OCATION OF WELL (Re	nort location cles	arly and in accorda	nce with any E	tate requirements."	10. FIELD AN	D POOL, OR WILL	CAT
ee also space it being	r.)					•	
it surface				•	11. ssc., T.,	M. OR BLE. A	•
15501 5	1550)' FWL, NE	SW		. BUNYN	OF TERT	
1220. 1	. 2L, 1990	, INL, NE	JM		Sec. 4.	T165,R1	6E
						OR PARISM 18.	
ZRMIT PO.	i	15. BLEVATIONS (Sh			1	1	
3-015-30198		9270	Ungrad	ed ground	Emer	y 1 U	tah
. 010 00100					. Other Date		
	Check App	propriate Box To	Indicate N	ature of Notice, Report, o			
X i	TICE OF INTENT	10X TO:	1	0 U 3 I	EBQUENT REPORT O	7	
			, []	WATER BHUT-OFF		ETAIRING WELL	
PROT WATER SHUT-OF	<u> </u>	ILL OR ALTER CABIN	` - 	FRACTURE TREATMENT		LTERING CARINO	
PRACTURE TREAT	M'	CLTIPLE CONFLETE	1			BANDONMENT [®]	
SHOOT OR ACIDIZE	^	BANDON*	 	amouting or acidizing	ب		
REPAIR WELL	CI	HANGE PLANS	-		mile of multiple of	mpletion on We	<u></u>
(Other)							
DESCRIBE PROPOSED ON	COMPLETED OPER	ATIONS (Clearly sta	te all pertinent	details, and give pertinent de	rtical depths for a	ll markers and	sunes bet
proposed work. If ment to this work.)	well is direction	monthly Drill	ING REPORT F	details, and give pertinent dates and measured and true versions and true versions are supplied to the supplin			
		Day Drilling	Depth	Operation		•	
	<u>Date</u>	58	12370'	Drilling 8-1/2" hol	le		
	9-1-84 9-2-84	59	12650'				
	9-3-84	60 61	12650' 12665'	Logging Working stuck drill	pipe		
	9-4-84 9-5-84	62	12000	Free point and back Wash over top of fig	011		
	9-6-84	63		Attempt to Screw On	fish a Puun		
	9-7-84 9-8-84	64 65	\$0	Attempt to wash over	r fish		
	9-9-84	66	et \$1	Wash over fish TIH w/overshot-no s	uccess,		
	9-10-84	67		made mechanii	Cal CUT		
	9-11-84	68	**	Latched onto fish W. jarring	/ UVETSHUL,		
	9-12-84	69	u	un chiled tubing tr	uck		
	9-13-84	70	61 36	WO coiled tubing tr Wash w/coiled tubin	q 3/4"		
	9-14-84 9-15-84	71 72		TOOH w/5 Jts drill	pipe		
	9-16-84	73	# #	TIH w/screw-in sub Cutting off drill p			
	9-17-84	74 75	 H	MUL			
	9-18-84 9-19-84	76		Set 190 sx cement p Drilling cement	ing fa\24.		
	9-20-84	77 78	8488' 8679'	Dria cmt & TO for M	ud motor	4	
	9-21-84 9-22-84	79	8696'	Drilling 8-1/2" hol	е		
	9-23-84	80 81	8767' 8767'	Ream to bottom.SD f	/high winds	,	
	9-24-84 9-25-84	82	9134'	Drilling 8-1/2" hol	e	,	
	9-26-84	83 84	9332' 9673'	н		÷	
• .	9-27-84 9-28-84	84 85	10152'	81 81			
	9-29-84	86	10376' 10659'	 H			
•	9-30-84	87	10033				
I hereby certify that	the foregoing i	s true and correct				. 10-19-84	
A.l.	00-116	version	TITLE	na. Tech.	DATE	10-19-04	·
BIGHED MICHELL	1						
(This space for Fed				•			
femin abarr sar a co-					DATE	:	
APPROVED BY			TITLE				
CONDITIONS OF A	PPROVAL, IF	LNI:	•	•			
		•					

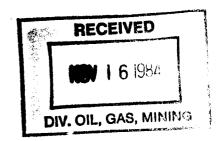
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL GAS, AND MINING

	DIVISION	OF OIL, GAS	AND MI	NING	5. LEASE DESIGNATION AND SERIAL PO.
	D 1113.0.0	O. O.C., C		-4.	Fee
01111	NA MOTICE	C AND DE	S C	SEMPOTO	6. IF INDIAN, ALLOTTED OR TRIBE NAME
SUND	RY NOTICE	S AND KE		CAR PED	
Ino not hos this to	Um "APPLICATIO	N FOR PERMIT-	" for such pr	ack to a different processis.	N/A
I.	·, · · · · · · · · · · · · · · · · · ·		NON	13 1984	T. UNIT AGREEMBNT NAME
WELL WELL C) •7 REL				Trail Canyon
L PAME OF OPERATOR	•		DIVIS	ION OF OIL	S. FARM OR LEASE HAMP
BOW VA	LLEY PETR	OLEUM, IN	C. GAS	& MINING	Lighthouse
. ADDRESS OF OFBRATOR					9. WALL NO.
P.O. D	RAWER 130	, ROOSEVE	LT, UTA	Н. 84066	10. FIELD AND FOOL, OR WILDCAT
L LOCATION OF WELL (Re-	port location clear! r.)	y and in accordan	ce with any	Blate requirements.	10. 912LD 2.119 1002, 02 W
At purface	•			•	11. APC. T. B. M. OR BLE. AND
1550'	FSL, 1550	' FWL, NE	SW		SUBVET OR ARBA
					Sec.4, T16S,R16E
			- C-0		12. COUPTI OR PARISE 18. STATE
id, premit bo.	1 -	L BLEVATIONS (She			Emery Utah
PI# 43-015-301	98	9270'	Ungrade	d ground	1 22
16.	Check Appro	prigte Box To	Indicate N	lature of Notice, Report, o	r Other Data
-	KOITHETHE TO STATE				DQUBNT BBFORT OF:
, •••	ATCE OF INTERVIOR			1	REPAIRING WELL
3281 MATER SHUT-OFF	POLL	OR ALTER CABINO	 	WATER BHUT-OFF	ALTERING CABING
PRACTURE TREAT	MCL	TIPLE COMPLETE	 	PRACTURE TREATMENT	ABANDONMENT [®]
BHOOT OR ACIDIEE	ABAN	DON.	 	Month!	drilling report X
BEFAIR WELL	CHAP	CE PLANS		(Other)	ults of multiple completion on Well mpletion Report and Log form.)
(Other)			<u> </u>	Completion or Reco	mpletion Report and Log form.)
17. DESCRIBE PROPOSED OR	COMPLETED OPERATIONAL	ons (Clearly state drilled give sul	all pertinent surface locat	t details, and give pertinent da lons and measured and true ver	tes, including estimated date of starting an itical depths for all markers and sones pert
ment to this work) *		NTHLY DRILLING			
	ED				
	DATE	DAY DRILLING	DEPTH	OPERATION	1
	10-1-84	88	11,042 11,312	Drilling 8-3/4" ho	le
	10-2-84 10-3-84	89 90	11,312	Run surveys. TOOH.	
	10-4-84	91	•	Chng out BHA.TIH.W Unplugging bit & d	ork tite noie rill collar
	10-5-84 10-6-84	92 93	9,980	Reaming	:
	10-7-84	94	10,164 10,711	•	
	10-8-84 10-9-84	95 96	10,711	Reaming & unpluggi	ng bit
	10-10-84	97	10,070	Reaming	
	10-11-84	98	10,712	•	•
	10-12-84 10-13-84	99 100	11,111 11,312	•	
	10-14-84	101	11,321	Drilling 85" hole	•
	10-15-84	102 103	11,446 11,593	•	
	10-16-84 10-17-84	104	11,720	•	
,	10-18-84	105	11,866	•	
	10-19-84 10-20-84	106 107	12,043 12,063	•	
	10-21-84	108	12,092	-	
	10-22-84	109	12,129	•	*
	10-23-84 10-24-84	110 111	12,224 12,260	•	•
	10-25-84	112	12,340	•	· •
	10-26-84	113	12,445		1
	10-27-84 10-28-84	114 115	12,466 12,590	•	<i>.</i>
•	10-20-84	116	12,663	•	
	10-30-84 10-31-84	117 118	12,692 12,702		: 5%" liner.
18. I hereby certify that				Eng. Tech.	11-8-84
BIONED		urson_	TITLE	Ling. Tech.	DATE
MICHE.	LLE ZINERS				
(This space for Feder	ral or Biate omce t	ive j			
APPROVED BY			TITLE		DATE
CONDITIONS OF AP	PROVAL, IF ANT	•	•		



Telephone: (303) 861-4366 Telecopier: (303) 832-3825

Telex: 45-0033



Mr. E. W. Guynn Chief Area Manager Bureau of Land Management 136 E. S. Temple Salt Lake City, Utah 84111

> RE: LIGHTHOUSE #1-4 WELL EMERY COUNTY, UTAH TRAIL CANYON UNIT

Dear Mr. Guynn:

Bow Valley Petroleum Inc. has completed drilling and running production liner on the above referenced well at a depth of 12,704'. The wellbore penetrated apparent gas bearing horizons in the Dakota and Morrison Formations. Both of these zones will be completed and tested.

Due to weather and safety constraints, we will not attempt to complete the Lighthouse #1-4 well this year. The completion will be undertaken in early summer next year when weather and road conditions permit. Current conditions make it economically prohibitive to maintain the seventy (70) mile long road into this location. In addition, we do not believe it to be prudent to subject the men who would be working on this location to a potentially life threatening situation in the event of severe winter weather. Consequently, we will not complete this well this year.

Would you please be kind enough to review the Federal Unit Agreement and advise me if this plan of operation will satisfy the obligation well requirement by signing a copy of this letter and returning it to our Denver Office. In the event you find that this plan is in anyway unacceptable, please notify me at your earliest possible convenience.

Thank you for your kind attention and cooperation. Looking forward to hearing from you shortly.

Yours very truly,

BOW VALLEY PETROLEUM INC.

David A. Gomendi

Manager, Drilling & Production

DAG:jb

Note: Please note that this completion will not replace our plan of operations for 1985 which include the drilling and completion of a well in Section 10, Township 15 South, Range 16 East. The completion of the Lighthouse #1-4 will be in addition to the proposed plan that you already have.

RECEIV	ED	THIS		 DAY	0F		 	·,	1984.
By: _				 			 		
			·	 			 		

COMPLETION ATTEMPT OF THE LIGHTHOUSE #1-4 IN THE SUMMER OF 1985 WILL MEET UNIT OBLIGATIONS AND REQUIREMENTS.

cc: Bureau of Land Management

P. 0. Box 970 Moab, Utah 84532

Attention: Mr. Gene Nodine

District Manager

State of Utah Division of Oil, Gas & Mining 4241 State Office Building Salt Lake City, Utah 84114

Attention: Mr. Ronald Firth

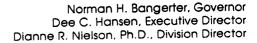
Chief Petroleum Engineer

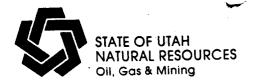
cc: S. R. Gray
B. A. Monson

L. Bridges

D. Johanningmeier

D. Givens G. Carson





355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 2, 1985

Bow Valley Petroleum, Inc. PO Drawer 130 Roosevelt, Utah 84066

Gentlemen:

Re: Well No. Lighthouse 1-4 - Sec. 4, T. 16S., R. 16E., Emery County, Utan - API #43-015-30198

The above referenced well has been under an operation suspended status for six months or longer. Please inform this office of the current status of this well location or what operations are currently being performed on this well.

Enclosed is Form OGC-lb, "Sundry Notices and Reports on Wells", that you may use to inform our office regarding this matter.

Sincerely,

Pam Kenna

Well Records Specialist

Enclosure

cc: Dianne R. Nielson Ronald J. Firth John R. Baza

File

G170S/51

TATE OF UTAH

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	DEPARTMENT OF NAT DIVISION OF OIL, G			5. L	EASE DESIGNATION A	NO SERIAL NO.
	DIVISION OF CIE, S	AG, AILD IIIII			U-28275	OR TRIBE NAME
SUND!	RY NOTICES AND	REPORTS C	ON WELLS ack to a different recerve	ir.	N/A	
· ·	M "APPLICATION FOR PERM	III— tot page hu	V)	7. 0	HIT AGESSMENT HAD	18
OIL WAS X	OTER				N/A	
NAME OF OPERATOR				• •	Lighthouse	_
	y Petroleum, Inc.			3. ,	WELL NO.	
ADDRESS OF OPERATOR	er 130, Roosevelt,	litah 84066			# 1-4	
P.U. Draw	ort location clearly and in according	ordance With any	Itate requirements.	1 -	PIELD AND POOL, OR	
See also space 17 below At surface	.)		•		okcliffs - W	
15E01 FC1	, 1550' FWL, NE SW			ı		
1000 LOD	, 1000 INL, NL 5W				C.4, T16S, R	
4. PERMIT NO.	15. BLEVATIONS	(Show whether or	, st, gr. (ia.)	l -		Utah
43-015-30198		70' Ungrade			mery	Ucan
•	Check Appropriate Box	To Indicate N	Nature of Notice, Res	port, or Other	r Data	
6 .		() (molecule	1	TREUPEREUR	ERPORT OF:	_
×	SAICS OF INSENSION SO:		WATER SHUT-OFF		REPAIRING T	PREE
IZST WATER SEUT-OF		1 6	PRACTURE TREAT	EST	ALTERING CA	f 1
PRACTURE TREAT	MULTIPLE COMPL	KTE -	SMOUTING OR ACI		Well Status	XX
SHOOT OR ACIDISE	ABANDON*		(Other)		Boltele completion	on Weil
REPAIR WELL			('ouppletion	or selection the cut.		-4 -4
(Other)	COMPLETED OPERATIONS (Clear) well is directionally drilled, gi	y state all pertine	nt derails, and give perti	inent dates, inci true vertical de	pris for all marker	and somes perti-
condi	tions. Bow Valley	Intends to	complete the we	:11 (1113 3	ummer •	
			ga ⊺			
				REAL		
				RECEI	VED	
				MAY 13	1985	
				GAS & MIN	r OIL	
				or reality	ins ·	
18. I hereby certify the	it the foregoing in true and con		Eng. Technicia	ın	DATE 5-8	-85
STENED MICH	ELLE M. MECHAM					
(This space for Fe	deral or State office use)				DATE	
		TITLE _		<u></u>		
APPROVED BY	APPROVAL, IF ANT:					

November 1983) DEPARTME	NITED STATES INT THE INTERIOR OF LAND MANAGEMENT	SUBMIT IN TRIPLICATES (Other Instructions on re- verse side)	Expires August 31, 1985 5. LEASE DESIGNATION AND SERIAL PO. U-28275 6. W INDIAN, ALLOTTER OR TRIBE NAME
OUNDRY MOTIC	to drill or to deepen or plug book to POR PERMIT—" for such PIER	WELLS a different reservoir.	N/A
			Trail Canyon
OIL WELL XX OTHER	A	UG 2 2 1985	S. PARM OR LEASE NAME
Bow Valley Petrole		00 2 2 1303	Lighthouse
		HOWALL CO.	9. WELL NO.
P.O. Drawer 130, F	Roosevelt, Utah 84068	ISION OF OIL	10. FIRLD AND POOL, OR WILDCAY
P.O. Drawer 130, F 4. LOCATION OF WELL (Report location clea See also space 17 below.)	rly and in accordance with any State	Less areas with A.C.	Bookcliffs-Wildcat
At surface 1550 FSL, 1550' FV	∜L, NE SW Section 4		11. EDC. R. B., M., GO BLE. AND Sec. 4, T16S, R16E
	18. BLEVATIONS (Show whether SF, ST,	on etc.)	12. COURTE OR PARISE 18. STATE
14. PERMIT NO.	9270' Ungraded gro	ound	Emery Utah
43-015-30198			
16. Check App	ropriate Box To Indicate Natu	re of Notice, Report, or C	Wher Data
NOTICE OF INTERTO		SUBSEQ.	BRE SEPORT OF:
<u> </u>	LL OR ALTER CASING	WATER SHOT-OFF	BEPAIRING WELL
	LTIPLE COMPLETE	PRACTURE TREATMENT	ALTERING CARING
PRACTURE TREAT	ANDON.	SHOOTING OF TCIDIFING	TBTMDONMENS.
SHOOT OF TCIPITY	IANGE PLANS	(Other)	of multiple completion on Well
(Other) 17. DESCRIBE PROPOSED OR COMPLETED OPER- proposed work. If well is direction.			
Attach a wellbore	ed find a report of wo diagram showing a cas s currently shut in fo	rk perfomed on the ing record and exi	well including sting open perfs.
18. I hereby certify that the foregoing is BIGNESS Michelle &	Mechan TITLE En	g. Technician	DATE
COMDITIONS OF APPROVAL, IF			

3

"See Instructions on Reverse Side

Bow Valley Petroleum inc.

RECEIVED

AUG 2 2 1985

LIGHTHOUSE 1-4

OUTLINE OF WORK PERFORMED

DIVISION OF OIL GAS & MINING

Spot cement across liner lap.

4" power-pac hollow carrier casing gun w/32 gram charges 2. Perf Morrison Form:

4JSPF 12572 12578 12564 12' 48 shots 12573 12568 12574 12569 12575 12570 12576 12571 12577

12532 3. Perf Buckhorn Form: 12511 12533

12517 12534 12523 12535 12527

12' 48 shots 12536 12530

12531 12537

Frac Morrison: 12564 - 12578 & Buckhorn 12511 - 12537

w/49730 gal. Versa-gel 1500-HT and 18,300 # 20-40 mesh interprop

5. Re-Frac Morrison & Buckhorn perfs w/

4000 gal 2% KCL w/base fluid containing additives

40000 gal Versa-gel 1500 HT pad

12000 gal versa-gel 1400 HTw/additives & 24,000 # 20-40 mesh sand

6. Perf Cedar Mountain Form: w/guns as above 12310' - 12327' (17 ft, 68 holes)

7. Frac Cedar Mountain Form: w/ 1000 gal 15% HCL w/additives & ball sealers followed by

1000 gal Methanol

Flush w/ 1450 gal 2% KCL H20

Surge balls off & pump 2000 gal Versa-gel 1500 HT pad in 5 stages w/ 1PPG 100 mesh sand on 2nd & 4th stages Pump 8000 gal Versa-gel 1400 HT w/l PPG 20-40 sand

Start 2PPG stage w/17000 gal Versa-gel 1400 HT w/ additives

Swabbing well. 8.

w/4" power-pac hollow carrier casing guns w/4 JSPF, 32 Gram charges Perf Dakota Form: 9. phased 90° 12109' - 12135' (excluding 12117')

Breakdown w/1000 gal 15% HCL w 150 ball sealers 10. Frac Dakota:

follow by 4000 gal pre-pad

flush w/1500 gai 2% KCL H20 - Surge balls off Pump 37500 gal Versa-gel 1500 HT pad containing 5% diesel in 7 stages Page 2

Lighthouse 1-4 OUTLINE OF WORK PERFORMED - continued

10. cont.

Pump 37500 gal Versa-gel 1400 HT Pad containing 5% diesel in 5 stages w/20-40 sand and last stage w/ carbo-prop

INITIAL PRESSURE TEST DATA W/ ALL PERFS OPEN & AFTER FRAC: (Dakota, Cedar Mountain, Buckhorn, Morrison)

8-14-85 8:00 a.m. w/ 1" orifice, 16/64 choke

Beginning mcf 161

Ending mcf 115

Average mcf during this 24 hour test 106.3

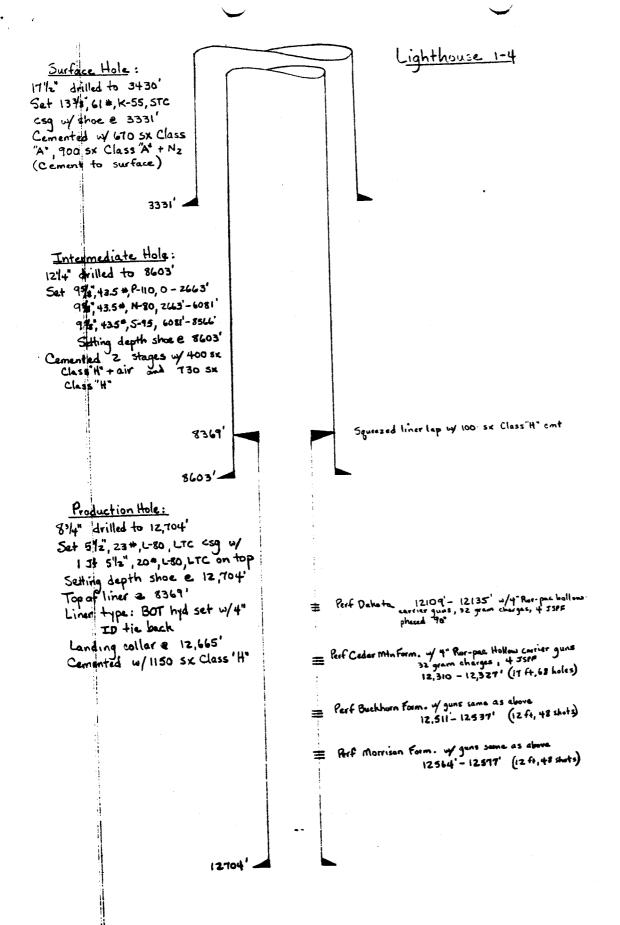
8-15-85 8:00 a.m. w/ 1" orifice, 12/64 choke

Beginning mcf 121

Ending mcf 132

Average mcf during this 18 hour test 85.6

-



9/13/85 Bow Valley - highthouse 1-4 (Fed) Sec. 4, TIGS, RIGE, Emery Co. DH. to 12704 51/2" liner 8369' - 12704 cunt. w/1150 sx Perfs. in Morrison @ 12564-12577 Bychhorm 12511 - 12537 C.M. 12310-12327 Dakota 12/09-12/35 Marco 5 11090 - 11140 Perts out of 2000 10090 - 10140 Fide in bole @ 12259-12300 1) Set retainer 50' above top pert ¿ gqueeze 100 SK. 2) Come out of hole & set a plug every 2000

(3) Pert. @ csq. shoe & circ.

Cut.

(4) 25 5x @ Surface

(5) Place 10.15 5x in annulus it

Verbal acceptance given to Sames Hooks 722-5166

Form 3160-5 (November 1963) (Formerly 9-331) BUREAU OF LAND N	HE INTERIOR HANDEN	Expires August 31, 1985 8. March Missington and March So. U-28275 8. W Missin, alsotted on this Name
SUNDRY NOTICES AND	DEPORTS ON WELLS	N/A 2
J		Trail Canyon
WELL WELL OF STREET		Eighthouse
Bow Valley Petroleum, In	RECEIVED	S. WHAL MO.
P O Drawer 130, Roosevel	t litah 84000	10. PIBLE AND POOL, OR WILDCAY
4. LOCATION OF WELL (Report location clearly and in acc. Bee also space 17 below.)	SFP 3 0 1985	Bookcliffs-Wildcat
At surface	OEI 3 - 1000	11. SEC., E., H., OR BLE. AND SUBVEY OR AREA
1550 FLS, 1550' FWL, NE		Sec. 4, T16S, R16E
14 PERMIT PO.	(Show whether se, st. on etc.) Ungraded ground	Emery Utah
43-013-30130		Other Data
	To Indicate Nature of Notice, Report, or C	CRET REPORT OF:
HOTICE OF INTENTION TO:	WATER SHOT-OFF	ABPAINING WELL
TEST WATER SHUT-OFF PULL OR ALTER COMPI	RTE PRACTURE TREATMENT	APPRODUMENT.
PRACTURE TREAT AROUT OR ACIDIES ARAHDON*	SECOTING OF ACEDISING	
REPAIR WELL CHANGE PLANS	(Other) (Nors: Report result	a of multiple completion on Wall pletion Report and Log form.)
(Other) 17. BESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clear) 18. BESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clear)	y state all pertinent details, and give pertinent dates we subsurface locations and measured and true verti-	
17. BERCHIEF PROPURED OF Well is directionally drilled, gi proposed work. If well is directionally drilled, gi nent to this work.)		
	As verbally approved with Greg No	ble (BLN) and John Baza (Utah OGM) 9/13/85
	Bow Valley plugged and abandoned well	GH 3/1//63 E3 10.10.13.
	1. Set cement retainer 9 10,040' and 2000#.	d test the to 4000 # 8 csg to
	 Circ hole w/ 2% KCL water. Spotted 20 sx 50/50 poz w/ 2% ge 	and retarder, 1.26 yield, 14.15%.
A wellbore diagram is attached. There are no recompletion possibilities. No additional surface distrubance is required	10 sx below retainer and 10 sx a 10,140').	bove retainer (200' plug f/ 9940' to
Restoration and reseeding will be	 Test csg to 2000/. Spotted 35 sx 50/50 pox w/ 2% ge 	1. 1.26 yield 14.15#, 8369'-8269'
completed as specified in Surface	(100' alug at liner lap).	
use and Developement Plan.	6. Perfed 4 shots in 9 5/8" csg 9 3	1000'. Establish circ between csg and ccc csg w/ 200 bbls 2% KCL water.
	7 Snotted 185 sx 50/50 poz w/ 2% 9	el and 2% CaCl., 1.26 yield, 14.139
	t and putside bi	pe 2800' to 3100').
	8. Spotted 10 sx 50/50 poz w/ 2% 90 00 of surface (26' plug).	
	9. Cut off wellhead 4° below ground	l level, install dry hole marker.
	10. Clean and reclaim location.	
18. I hereby certify that the foregoing is true and cor	rect Tankadada	DATE 9/24/85
Nichelle A Mechan	End. lecinifician	DATE STEATES
(This space for Federal or State office use)		
	ACCEP	TED BYTHE STATE
CONDITIONS OF APPROVAL, IF ANT:	OF U	TAH DIVISION OF
	OIL, (GAS, AND MINING
	See Instructions on Reverse Side ATE:	10/5/85

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

Well Name and NumberLIGHTHOUSE 1-4
Operator BOW VALLEY PETROLEUM, INC.
Address P.O. DRAWER 130, ROOSEVELT, UTAH 84066
Contractor APOLLO DRILLING
Address 1625 BROADWAY, SUITE 2030, DENVER, COLORADO 80202
Location NE 1/4, SW 1/4, Sec. 4; T. 16 XX; R. 16 XX; EMERY County
Water Sands: Depth: Volume: Quality: From- To- Flow Rate or Head - Fresh or Salty -
1. NONE ENCOUNTERED
2.
3.
4.
5.
(Continue on Reverse Side if Necessary)
Formation Tops:

- NOTE: (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules And Regulations and Rules of Practice and Procedure.
 - (c) If a water quality analysis has been made of the above reported zone, please forward a copy along with this form.

GEOLO(AL SURVEY			28275	R TRIBE NAME
SUNDRY NOTICES A (Do not use this form for proposals to drill Use "APPLICATION FOR		, wasa ta a minsishi isaci	•	N/A	
OIL XX CAS OTHER		RECEIV	Tr.	ail Canyon	
Bow Valley Petroleum, Inc	•	NOV 1 3 1	9 85 Li	ghthouse	·
P O Drawer 130, Roosevelt	, Utah 84066	OLVISION C	OF OIL	1-4	*** 0.54.5
See also space 17 below.) At surface 1550' FSL, 1550' FWL, NE	in accordance with an	y State redelrements. GAS & MI	NING Bo	okcliffs - W C. T. R. M. OR BLI BURVEY OR ARBA :. 4, T16s, I	ildcat
PERMIT NO. 43-015-30198	270 ungraded	ground	12 Eme	DUNTY OR PARISE	"Utah"
Check Appropriate	e Box To Indicate	Nature of Notice, R	eport, or Other L)at a	
FRACTURE TREAT SHOOT OR ACIDIES ABANDON* ACPAIR WILL (Other) DESCRIBE PROPOSED OR COMPLETED OPERATIONS (In proposed work. If well is directionally drillerent to this work.)*	ANS	Completic	CDIZING conizing conor results of multiple of Recompletion R		a Well
Reclaiming operations on Reseeding which is to be ditions on the mountain.	dolle ill che	have been compl Spring of 1986 (eted with the lue to present	e exception of weather co	of n-
At that time, the soil we the original Landowner A	vill be reseed Agreement.	ed as decided u	oon in		
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. •					
			·		
SIGNED figlette to take	correct	Engineering Tea	chnician	11/1 DATS	2/85
SIGNISH Wichello Marcham (This space for Federal or State office use))	Engineering Te	chnician	DATS	2/85

ighthouse 1-4 Hole: 1712" diffiled to 3430' Section 4, 165, RILE Emery County, Utah Set 137, 61 +, K-55, STC Fed. Lease # 14-28275 csg w/ shoe e 3331' API # 43-015-30198 Cemented w/ 670 SX Class "A", 900 SX Class "A" + N2 (Cement to surface) * Wellbore Diagram
prior to P&A on 9-17-85 3331 Intermediate Hole: 1214" drilled to 8603' Set 958,43.5 #, P-110, 0 - 2663' 98,43.5#, N-80, 2663'-6081' 9 18, 43.5 , 5-95, 6081 - 8566 Setting depth shoe @ 8603'
Cemented Z Stages w/ 400 sx
Class"H" + air and 730 sx Class "H" - DV collar @ 7607" 8369' Squeezed liner lap by 100 sx Class "H" cmt (Linerlap 234') 8603 Production Hole: 83/4" drilled to 12,704' Set 5 12", 23 +, L-80, LTC <59 W/ Perf Mancos 10090'- 10140' w/4" guns, 50 perfs 1 1 512", 20 +, L-80, LTC on top 950' 11090' - 11140' w/4" gun,
1 premium SPF 50 perfs Perf Mancos 9-9-85 Setting depth shoe e 12,704'
Top of liner e 8369' 969 Liner type: BOT hyd set w/4" Perf Dakota 12109'- 12135' w/4" Pur-pac hollon 8-10-85 earrier guns, 32 gram charges, 4 JSPF phased 90° 26 perfs ID tie back 175 Landing collare 12,665' Cemented w/1150 sx class "H" Perf Cedar Mtn Form, w/ 4" Pur-pac Hollow carrier guns 8-5-85 32 gram charges, 4 JSPF 17' perfs 12,310 - 12,327' (17 ft,68 holes) * Fish - Tope 12259' - Bottom e 12302' 184 Made 3 attempts to recover on 9-5, 9-6, 9-7 1985 Perf Buckhorn Form. W guns same as above 26 perfs 12.511- 12537' (12ft, 48 shots) Perf Morrison Form. wy guns same as above 13' perfs ≡ 7-25-45 12564' - 12577' (12 ft, 48 shots)

> TIH w/41/2" OD mill 7-23-85 Mill to 12662'

Norman H. Bangerter, Governor Dee C. Hansen, Executive Director Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

November 13, 1985

Bow Valley Petroleum, Inc. P.O. Drawer 130 Roosevelt, Utah 84066

Gentlemen:

Re: Well No. Lighthouse 1-4 - Sec. 4, T. 16S., R. 16E., Emery County, Utah - API #43-015-30198

This letter is to advise you that the "Well Completion or Recompletion Report and Log" for the above referenced well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, and forward it to this office as soon as possible, but not later than November 27, 1985.

Sincerely,

Pam Kenna'

Well Records Specialist

Enclosure

cc: Dianne R. Nielson Ronald J. Firth John R. Baza

File

01705/22

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING

SUBMIT IN	DUPL!	E*			
(See other instructions					
on reverse side)					

•		O12, GAO, A		••		:			J - 2827	5		
WELL CO	MPLETION	OR RECO	MPLET	ON	REPORT	AN	D LOG*	6. 1		ALLOTTEE C	R TRIBE NAME	
1a. TYPE OF WEL		GAS		RY 🔲	Other			·*	N/A	EMENT NAMI	1	
b. TYPE OF COM	PLETION:				PF	CF	IVED			Canyon		
WELL X	OVER DEED	P- PLUG BACK	DIFF	vr.	Other			0. •		LEASE NAME		
2. NAME OF OPERAT		Inc			NO	W a	2 1985	1	ighth	ouse		
3. ADDRESS OF OPER	Petroleum	, 1110			140	W Z	£ 1303		1-4			
P O Drawer	130, Roose	evelt, Uta	h 840	66	- DIV	18:10	N OF OIL	1		D POOL, OR V	FILDCAT	
4. LOCATION OF WEI	L (Report locatio	n clearly and in	accordance	with an	y State Hedili G/	rement NS &	MINING	1	Wildca		CK AND SURVEY	
At top prod into	1550' FWL; erval reported beli	-	L, NE	SW				1	OR AREA			
	same	°" same							sec. 4	, T16 S ,	KIDE	
At total depth	Same		1 14 PES	MIT NO.	······································	DATE	ISSUED		COUNTY O	n 13	STATE	
				15-30			114/84		Physin C	1 .	Utah	
7/06/84	16. DATE T.D. RE		те сомрь. (igged &		o prod.) 18	ELEV	ATIONS (DF. RI	KB, RT, GR,	ETC.)*	19. ELEV. C	ASINGHEAD	
12704 MD	A TVD 21. PLUG	, BACK T.D., MD &	TVD 22.	IF MI'L HOW M	TIPLE COMPL.	•	23. INTERVAL DRILLED		ath root	S CA	"Indhe"	
24. PRODUCING INTER	VAL(S), OF THIS	COMPLETION-TO	P, BOTTOM,	NAME ()	MD AND TVD)*						DIRECTIONAL EY MADE	
No produc	tion, plu g g	ged and ab	andone	d 9/1	7/1985					no		
CNL, FDC,	DIL, Cybe		Spectr	oscop	y, GR te	mpe	rature lo	ong, C		27. WAS WEI BL no		
CASING SIZE	1				ort all strings	set in						
13 3/8"	WEIGHT, LB./F	3331		но	17½ "	670	O SX (A)	ING RECOR			INT PULLED	
9 5/8 "	43.5#				12½"		S SX 'H'		/air, /30, sx 'H'			
					·	·						
			İ									
SIZE	TOP (MD)	INER RECORD	SACKS CE	MENT*	SCREEN (MI	<u> </u>	SIZE		G RECO		R SET (MD)	
5½"	8369 '	12704'	1150		T	-	7		7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	/	
II PROVINCE MICH.												
1. PERFORATION RECO	see attache				32.		D, SHOT, FRA			- · · · · · · ·		
3	ee attache	u			see att			AMOUNT	AND KIND	OF MATERIA	L USED	
3.•				PROL	UCTION							
ATE FIRST PRODUCTION		TION METHOD (Flowing, ga			and ty	pe of pump)		WELL S	TATUS (Prod	ucing or	
None - P	& A well o								P1	ugged &	Abandone	
	HOURS TESTED	CHOKE SIZE	PROD'N TEST P		OIL—BÉL.	-	GAS-MCF.	WAT	ER—BBL.	GAS-OIL	RATIO	
LOW, TUBING PRESS.	CASING PRESSURE	24-HOUR RAT	E OIL—B	BL.	GAS—I	MCF.	WAT	ER—BBL.		OIL GRAVITY-	IPI (CORR.)	
4. DISPOSITION OF GA	s (Sold, used for f	'uel, vented, etc.)		·				TEST	WITNESS	ED BY		
										7 /3 -		
5. LIST OF ATTACHM	on and Stim	ulation d	 otail						0	5		
6. I hereby certify				is comp	lete and corre	ct as	determined fr	om all av	allable ra	cords		
AIGNED	0 00-lh	cham)	TIT	ŗ			Technici		DATE	11/18/	'85 <u> </u>	
1110110	C INCHIUM	· · · · · · · · · · · · · · · · · · ·										

NSTRUCTIONS

or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency,

should be listed on this form, see item 35.

Consult local State 19em 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements.

Hem 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Hem 18: Indicate which elevation is used for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing intervals, top (s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, and interval interval to be separately produced, showing the additional data pertinent to such interval.

Hem 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Hem 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

	o.	TRUB VERT. DEPTH	
GEOLOGIC MARKERS	TOP	MEAS. DEPTH	29031 57731 8316 11,8891 12,0021 12,2221 12,3921 12,5561
38. GBOLOG			WASATCH NORTH HORN MANCOS DAKOTA SILT DAKOTA SAND CEDAR MTN BUCKHORN MORRISON
TRIBEROF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING PEN, PLOWING AND SHUT-IN PRESSURES, AND RECOVERIES	DESCRIPTION, CONTENTS, ETC.		
OSITY AND CONTEN	BOTTOM		
MARY OF POROUS ZONES: BHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THERBOF BETTH INTERAL TESTED, CUSHION USED, TIME TOOL OPEN, PLOWIN	don		
37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF DEPTH INTERNAL TESTED, CUSH	NOIST		

Lighthouse 1-4 Perforation Detail

(T) Morrison Formation
7/25/85 Perf w/ 4" pwr-pac hollow carrier csg gun, phosed 90°
32 gram charges, 4 JSPF

12564	12573	
12568	12574	
12569	12575	
12570	12576	12 feet, 48 shots
12571	12577	, ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,
12572	12578	

(2) Buckhorn Formation 7/25/85 Perf w/ guns, charges, and shots as above

12511	12532	
12517	12533	
12523	12534	
12527	12535	12 feet, 48 shots
12530	12536	
12531	12537	

(3) Cedar Mountain Formation 8/05/85 Perf w/ guns, charges, shots as above

12310	12318	12327				
12311	12319					
12312	12320					
12313	12321		17	feet,	68	shots
12314	12322					
12315	12323					
12316	12324					
12317	12325					
	12326					

(4) Dakota Formation 8/10/85 Perf w/ guns, charges, shots as above

12109 12110 12111 12112	12123 12124 12125 12126				
12113 12114	12127 12128				
12115	12129	26	feet,	104	shots
12116 12118	12130 12131				
12119	12132				
12120	12133				
12121	12134				
12122	12135				

Page 2 (Lighthouse perforations continued)

(5)	Mancos 9/9/85	Formation Perf w/		1 premium	JSPF	
		11090 11091 11092 11093 11094 11095 11096 11097 11098 11099	11101 11102 11103 11104 11105 11106 11107 11108 11109 11110	11112 11113 11114 11115 11116 11117 11118 11119 11120 11121	11123 11124 11125 11126 11127 11128 11129 11130 11131	11133 11134 11135 11136 11137 11138 11139 11140

52 feet, 52 shots

Lighthouse 1-4 Stimulation Detail

(1) Morrison and Buckhorn Formations
7-28-85 (a. Frac w/49730 gal Versa-gel 1500-HT and 18000#
20-40 mesh sand

8-2-85 Re-frac as follows:

- (a. Breakdown w/4000 gal 2% KCl w/base fluid
- (b. Pump 40000 gal Versa-gel 1500-HT pad
- (c. Pump 12000 gal Versa-gel 1400-HT and 24000# 20-40 mesh sand
- (2) Cedar Mountain Formation 8-6-85 Frac as follows:

(a. Breakdown w/1000 gal 15% HCl acid followed w/1000 gal

(b. Flush w/1450 gal 2% KCl H₂0

- (c. Surge balls off and pump 2000 gal Versa-gel 1500-HT pad in 5 stages w/1 PPG 100 mesh sand on 2nd and 4th stages
- (d. Pump 8000 gal Versa-gel 1400-HT w/1 PPG 20-40 mesh sand (e. Start 2 PPG sand stage w/17000 gal Versa-gel 1400-HT
- (3) Dakota Formation

8-11-85 Frac as follows:

(a. Breakdown w/1000 gal 15% HCl acid w/150 ball sealers

(b. Flush w/1500 gal 2% KCl H₂0

- (c. Surge balls off and pump 37500 gal Versa-gel 1500-HT pad containing 5% diesel in 5 stages w/20-40 mesh sand
- (d. Pump 37500 gal Versa-gel 1400-HT pad containing 5% diesel in 5 stages w/20-40 mesh sand and last stage w/carbo-prop
- (4) Mancos Formation

9-10-85 (a. Frac w/5000 gal 15% HCl acid and 800 scf/bbl N_2

(b. Flush to bottom perf w/1920 gal 2% KCl H₂0



355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

February 27, 1986

Bow Valley Petroleum, Inc. P O Drawer 130 Roosevelt, Utah 84066

Gentlemen:

Re: Lighthouse 1-4 - Sec. 4, T. 16S, R. 16E Emery County, Utah - API 43-015-30198

A review of our records indicates that copies of the electric and other logs, which were run on the referenced well, as indicated on the Well Completion Report dated November 18, 1985, have not been received. Rule 312, Oil and Gas Conservation General Rules, requires that copies of well logs be submitted within 90 days of abandonment of any well.

Please provide the required logs at your earliest convenience, but not later than March 10, 1986.

Respectfully,

Norman C. Stout

Administrative Assistant

ta

cc: Dianne R. Nielson Ronald J. Firth John R. Baza

FILE

0356/12